

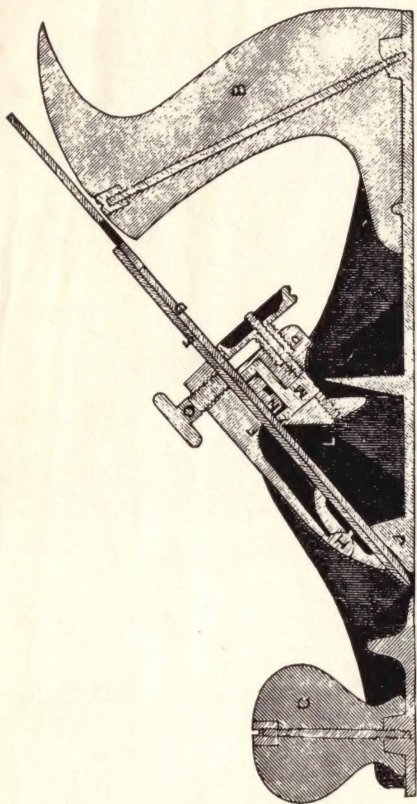
THE FOSS PATENT
ADJUSTABLE
IRON PLANES.



MANUFACTURED BY
PHILIP E. CHAPIN,
PINE MEADOW, CONN.

1878.

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SECTIONAL VIEW OF THE FOSS PATENT PLANE.

FOSS' PATENT ADJUSTABLE IRON BENCH PLANE.

THE Cut on opposite page gives a sectional view of my Iron Smooth Plane.

The Bed A A is made in such a way that it cannot possibly warp, thereby insuring a perfectly straight face, a feature that is indispensable in a Bench Plane. The Handle B, and Knob C, are made of either wood or iron, to suit parties ordering; but unless iron is ordered, I prefer to put on wood, as I think wood is the best. It is easier to the hand while in constant use.

The Plane Iron D is made from the best English Cast Steel, and is tempered and ground by a process known only by us, and sharpened for immediate use before sent from the Factory. The Cap Iron E is also made from the best of steel, and is secured to the Plane Iron by an adjusting screw near the center.

The Cap F is in itself of great importance to a perfect Plane, and this improvement is controlled wholly by me. It is secured to the Plane by two ears or projections, one on each side, which is let into the sides A, and which act as a fulcrum, and is clamped by the thumb screw G. At the lower extremity of the cap is a joint H, which joint is a ball and socket, which is the fulcrum for the joint. The use of this joint is to insure a perfect bearing the whole width of the Plane Iron, thus preventing any possible chance for the Plane Iron chattering, which cannot be avoided in any other Plane made.

The seat J for the Plane Iron is cast on to the bed, which makes it as firm as solid iron can be, and is very broad, thus giving the Plane Iron a larger bearing than can be found in any other Plane. In most Planes this seat is a separate piece, and is

secured to the bed piece with a screw, which is very liable to get loose and derange the working of the Plane.

In rear of the bit or Plane Iron D, and in a line substantially parallel thereto, is situated the adjustment for adjusting the Plane Iron to cut the shaving as coarse or fine as may be desired. One part, K, of the screw is arranged, its lower end supported in a suitable socket L, and with an arm M, extending toward the bit, and connected therewith through the cap screw N, so that the movement of the screw K will move the bit or Plane Iron accordingly. On to the part K, of the screw, the second tubular part O of the screw is set, threaded inside and out, the inside thread corresponding to the thread of the part K, and finer than the thread on the outside of the part O that is, so that there is a difference in the two threads (K being 24 threads to the inch, and O 18 threads to the inch). The part O is placed in a stationary nut P, and is provided with a suitable head by which it may be turned. The screw threads are both the same, that is, both right hand; therefore by turning the part O so as to run it downward, the part K will correspondingly run up into the part O, and the downward movement of the Plane Iron will be only the difference between the two threads, as for instance, the external thread of the part O, being 18 threads to the inch, and that of the part K, 24 threads to the inch; then a full revolution of part O would run that screw down one-eighteenth of an inch, and draw the part K up one twenty-fourth of an inch, and the bit would be moved 1-72d of an inch.

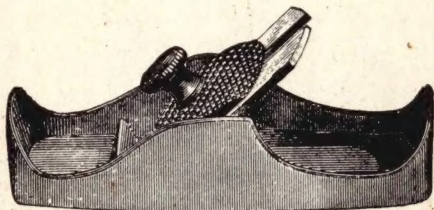
Every Plane is made interchangeable, so that when ordering any part or parts you can be sure of its fitting when you get it.

Any one having a Plane without an adjustment can order one and put it on without any trouble.

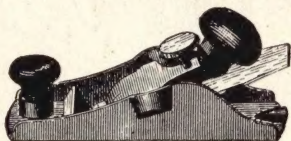
FOSS' PATENT ADJUSTABLE PLANES.

We test every Plane at the factory, and see that every one is in perfect working order before sending out.

No mechanic should be without a complete set of The Foss Patent Planes. Every Plane warranted.



No. 0. Infant Plane, each, - - - \$0.25



No. 1. Block Plane, 6 inches in length, with Rosewood Knob and Handle, $1\frac{3}{4}$ inch Cutter, without Adjustment, - - - .70

No. 2. Block Plane, 6 inches in length, Rosewood Knob and Handle, $1\frac{3}{4}$ inch Cutter, and with Nickel-Plated Adjustment, 1.00



No. 3. Block Plane, 6 inches in length, $1\frac{3}{4}$ inch Cutter, Adjustable Mouth, Rosewood Handle, without Adjustment, - 1.25

No. 4. Block Plane, 6 inches in length, $1\frac{3}{4}$ inch Cutter, Adjustable Mouth, Rosewood Handle, and Nickel-Plated Adjustment and Trimmings, - - - 1.50



No. 5. Smooth Plane, 7 inches in length, $1\frac{3}{4}$ inch Cutter, Rosewood Trimmings, without Adjustment, - - - \$2.50

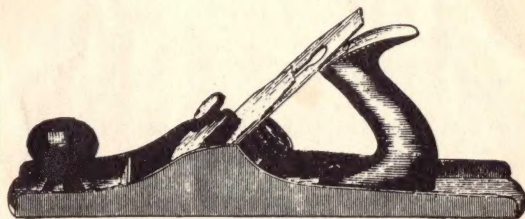
No. 6. Smooth Plane, 7 inches in length, $1\frac{3}{4}$ inch Cutter, Rosewood Trimmings, and with Nickel-Plated Adjustment, 3.00

No. 7. Smooth Plane, 8 inches in length, $1\frac{3}{4}$ inch Cutter, Rosewood Trimmings, without Adjustment, - - - 3.00

No. 8. Smooth Plane, 8 inches in length, $1\frac{3}{4}$ inch Cutter, Rosewood Trimmings, and Nickel-Plated Adjustment, - 3.50

No. 9. Smooth Plane, 9 inches in length, 2 inch Cutter, Rosewood Trimmings, without Adjustment, - - - 3.50

No. 10. Smooth Plane, 9 inches in length, 2 inch Cutter, Rosewood Trimmings, and Nickel-Plated Adjustment, - 4.00



No. 11. Jack Plane, 14 inches in length, 2 inch Cutter, Rosewood Trimmings, without Adjustment, - - - - \$4.00

No. 12. Jack Plane, 14 inches in length, 2 inch Cutter, Rosewood Trimmings, and with Nickel-Plated Adjustment, 4.50

No. 13. Fore Plane, 18 inches in length, 2 3/8 inch Cutter, Rosewood Trimmings, without Adjustment, - - - - 5.00

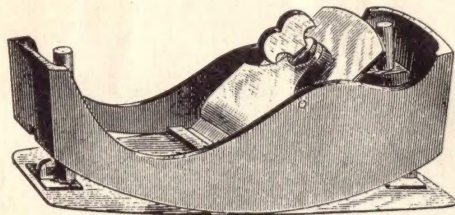
No. 14. Fore Plane, 18 inches in length, 2 3/8 inch Cutter, Rosewood Trimmings, with Nickel-Plated Adjustment, - 5.50

No. 15. Jointer Plane, 22 inches in length, 2 3/8 inch Cutter, Rosewood Trimmings, without Adjustment, - - - - 6.00

No. 16. Jointer Plane, 22 inches in length, 2 3/8 inch Cutter, Rosewood Trimmings, with Nickel-Plated Adjustment, - 6.50

No. 17. Jointer Plane, 24 inches in length, 2 3/8 inch Cutter, Rosewood Trimmings, without Adjustment, - - - - 7.00

No. 18. Jointer Plane, 24 inches in length, 2 3/8 inch Cutter, Rosewood Trimmings, with Nickel-Plated Adjustment, - 7.50



No. 19. Circular Plane, 3 1/4 inches in length, 1 inch Cutter, to plane in a 6 inch circle; a very useful Plane for Pattern Makers, &c., - - - - \$2.00

No. 20. Circular Plane, 10 inches in length, 1 3/4 inch Cutter, - - - - 4.00

PLANE IRONS.



These Plane Irons are made from the best English cast steel manufactured expressly for me, and are ground and tempered ready for use when sent from the factory, and are *fully warranted*.

SINGLE IRONS.

Inches,	1 3/4	2	2 3/8	2 5/8
Each,	33	37	44	48 cents.

DOUBLE IRONS.

Each,	55	60	70	75 cents.
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Price of Cutters for No. 19 Circular Plane, each, 15 cents.

Price of Cutters for No. 0, Infant, each, 15 cents.

Price of Screw Adjustments, each, 75 cents.

FOSS' IRON SPOKE-SHAVES.



No. 40. Raised Handle, $10\frac{1}{2}$ inches in length,
 $2\frac{1}{8}$ inch Cutter, per dozen, - - - \$2.00

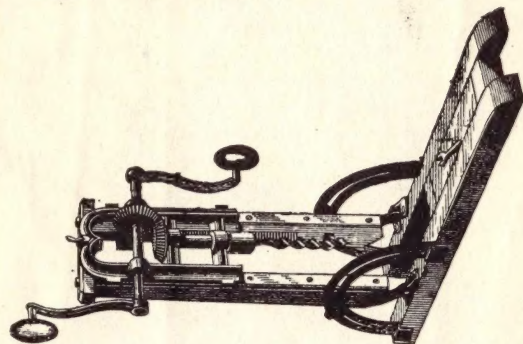
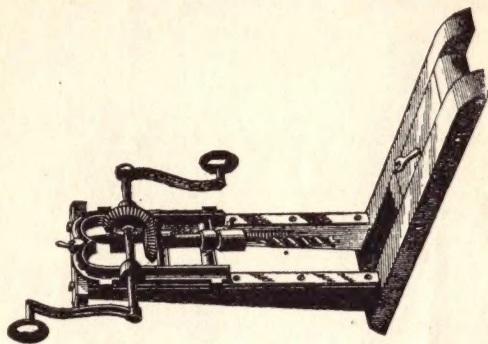
No. 41. Raised Handle, $10\frac{1}{2}$ inches in length,
 $2\frac{1}{8}$ inch Cutter, round face to cut a
 convex, per dozen, - - - 2.00

No. 42. Raised Handle, $10\frac{1}{2}$ inches in length,
 $2\frac{1}{8}$ inch Cutter, hollow face, per dozen, 2.00

No. 43. Double Cutter, $10\frac{1}{2}$ inches in length,
 $1\frac{1}{2}$ inch Cutter, one Cutter hollow and
 one straight, per dozen, - - - 3.00

Cutters for Spoke-shaves, per dozen, - - - 1.00

IMPROVED BORING MACHINES.



No. 50. UPRIGHT Boring Machine, without
 Augers, - - - - - \$3.35

No. 55. ANGULAR Boring Machines, without
 Augers, - - - - - \$4.50

All Boring Machines packed two in a case, unless
 otherwise ordered. If packed one in a box, extra
 charge will be made for boxing.